Regarding Class II Watercourse Protection Studies

Public comment made at the last BOF meeting reminded the Forest Practice Committee that effectiveness monitoring studies of the Class II – Large watercourse rule should be designed to answer questions regarding the necessity and benefit of Class II–L riparian forest prescriptions relative to downstream receiving Class I waters; and what if any correlation in benefit is related to channel size and/or streamflow AND distance from receiving Class I waters. I recognize answering such questions is beyond the ability of any one study, however it is my hope that the EMC endorses studies on this subject matter that will shed light on these questions related to nutrient, sediment, large wood, and temperature transfer.

Below are some questions reflective of those that arose during the Class II-L prescription development dialogue. Studies designed to answer these types of questions will likely prove useful to the BOF and Forest Practice Rule making process as a whole. It has been awhile since I reviewed the current Class II-L study endorsed by the EMC but I suspect it addresses some or many of these questions. This area of scientific inquiry is complex and it is recognized that an array of focused technically sound studies over an extended period of time is necessary to provide confidence in determining what additional measures or other changes to current Class II Standard and Large watercourse prescriptions, if any, are necessary for the conservation and restoration of Class I streams relative to the ecological contribution of their Class II tributaries.

I share this in response to what I was reminded at the last BOF meeting during stakeholder comment and because it has been on my mind for several years. Please consider as you see fit.

Thank you
Mike

Example Questions:

1. Macro-invertebrates: Do Class II riparian forests with larger trees and greater canopy requirements like those required under Class II-L produce a greater quantity of aquatic macro-invertebrates than Class II riparian forests utilizing standard FPRs? (NECESSITY and BENEFIT)

2. Macro-invertebrates: Do Class II riparian forests with larger trees and greater canopy requirements like those required under Class II-L produce a greater quantity terrestrial macro-invertebrates than Class II riparian forests utilizing standard FPRs? (NECESSITY and BENEFIT)

3. Further study of maximum transport distance of macro-invertebrates from Class II waters to Class I waters. (CLASS II-L DISTANCE OF PROTECTION)

4. Temperature: Do Class II riparian forests with larger trees and greater canopy requirements like those required under Class II-L produce a measureable and significant (e.g. > 1 C° difference) reduction in Class II water temperature compared to Class II riparian forests utilizing standard FPRs? (NECESSITY and BENEFIT)

5. Temperature: If 4 above is true, what distance do Class II waters need to travel through Class II-L canopy conditions to achieve this reduction in water temperature? Does this distance vary in

correlation to channel width or volume of flow (cfs)? (CLASS II-L DISTANCE OF PROTECTION; CLASS II-L MINIMUM CHANNEL SIZE)

6. Large Wood Recruitment: Does more LWD recruitment through bank erosion, windthrow, competition/mortality occur in Class II streams receiving Class II-L prescriptions than Class II-Standard Rx? (NECESSITY and BENEFIT)

7. Large Wood Recruitment: Does larger wood (>24 inch DBH) in Class II watercourses create greater habitat complexity, pool depths, and provide greater sediment storage opportunity store more sediment than smaller wood (<24 inch DBH)? (NECESSITY and BENEFIT)

8. Large Wood Recruitment: Do Class II watercourses with a bankfull channel width of less than 5 feet transport significant amounts of key piece size wood downstream to Class I waters (e.g. minimum 6" diameter x 1.5 length of receive Class I water channel width)? (CLASS L MINIMUM CHANNEL SIZE)

9. Do Class II watercourses with a bankfull channel width of 5-10 feet transport significant amounts of key piece size wood downstream to Class I waters (e.g. minimum 6" diameter x 1.5 length of receive Class I water channel width)? (CLASS II-L MINIMUM CHANNEL SIZE)